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"The Farmer sat in his easy Chair."

The following admirable picture is from the poems of Charles G. Eastman. We copy it from the National Era:

The farmer sat in his easy chair,
Smoking his pipe of clay,
And his hale old wife, with busy care,
Was clearing the dinner away;
A sweet little girl with fine blue eyes,
On her grandfather's knee was catching flies.

The old man laid his hand on her head,
With a tear on his wrinkled face;
He thought how often her mother, dead,
Had sat in the self-same place;
As the tear stole down from his half-shut eye,
"Don't smoke," said the child, "for it makes you cry."

The housedog lay stretched out on the floor,
Where the shade after noon used to steal;
The busy old wife, by the open door,
Was turning the spinning wheel;
And the old brass clock on the mantel-tree,
Had plodded along to almost three.

Still the farmer sat in his easy chair,
While close to his heaving breast,
The moistened brow and the cheek so fair,
Of his sweet grand child was pressed;
His head, bent down, on her soft hair lay,
Fast asleep were they both that summer day.

Regulations of Chauncey Hall School, Boston.

The following regulations of one of the best conducted Private Schools for Boys in New England, will furnish useful hints to teachers in framing regulations for their own schools; especially in reference to the *good behavior* of the pupils, and to the care of the school room, furniture, &c., &c.

PROHIBITIONS.

Boys are forbidden to buy or sell, borrow or lend, give, take, or exchange, anything except fruit or other eatables, without the teacher's permission.

To read any book in school, except such as contain the reading lesson of his class.

To have in his possession at school any book without the teacher's knowledge.

To throw pens, paper, or anything whatever on the floor, or out at a window or door.

To go out to play with his class, when he has had a *deviation*.

To spit on the floor.

To climb on any fence, railing, ladder, &c., about the school house.

To scrawl on, blot, or mark slips.

To mark, cut, scratch, chalk, or otherwise disfigure, injure or defile any portion of the building or anything connected with it.

To use a knife, except on the conditions prescribed.

To take out an inkstand, meddle with the contents of another's desk, or unnecessarily open or shut his own.

To write without using a card and wiper.

To quit school without having finished his copy.

To remove class lists from their depositories.

To meddle with ink unnecessarily.

To study *home* lessons in school hours.

To leave the hall at any time without leave.

To pass noisily, or upon the run, from one room to another, or through the entries.

To visit the office, furnace room, or any closet or teacher's room except in class, without a written permit.

To play at *paw-paw* any where, or to play any game within the building.

To play in the play ground before school.

To leave whittings or other rubbish in the play ground, on the side walk, or around the building.

To go out of the play ground during school hours.

To carry his pen on his ear.

To use any profane or indelicate language.

To nickname any person.

To press his knees, in setting, against a form.

To leave his seat for any purpose but to receive class instructions.

To go home, when deficient, without having answered to his name.

To indulge in eating or drinking in school.

To go out in class, after having gone out singly; or going out singly, to linger below to play.

To waste school hours in unnecessary talking, laughing, playing, idling, standing up, turning around, teasing, or otherwise calling off the attention of another boy.

To throw stones, snow balls, or other missiles about the neighborhood of the school.

To bring bats, *hockey* sticks, bows and arrows, or other dangerous playthings to school.

To visit a privy in company with any one.

To strike, kick, push, or otherwise annoy his associates or others.

In fine, to do anything the law of love forbids—that law which requires us to do to others as we would think it right that they should do to us.

It is said there is nothing new under the sun. We incline to think the following is. It is related that a Yankee, on a visit to one of the public Arsenals (perhaps Vergennes) was asked how he supposed the long brass twelve-pounder cannon were made? He "calculated" that they "took a long hole and poured brass around it!—*Burlington Free Press*.

From the Massachusetts Teacher.
The Spelling Reform.

Probably, very few readers of the "Massachusetts Teacher" are unacquainted with the name of Isaac Pitman, as the inventor of a system of writing and printing, called Phonography and Phonotypy. In the former art, we have a series of the most simple signs, so philosophically arranged, as to present to the eye a perfect daguerreotype of speech, and capable of being written with five times the rapidity of ordinary long-hand.

By the latter, every sound in our language is represented by a separate type, and words are spelled in accordance with the true theory of a written language—viz.: just as they are pronounced.

In August, 1846, an able and elaborate report was presented to the American Academy of Arts and Sciences, by Mr. George B. Emerson, in behalf of a committee appointed by that body, to investigate the subject of Phonotypy. This report fully sustains the views of the advocates of phonetic spelling, demonstrates the feasibility of the proposed reform, and conclusively answers the main objections brought against it.

From that time to the present, the progress in both the writing and the printing departments of the reformation, has been steadily onward, in England and America. A host of Phonographic Reporters have risen up, so that scarcely a great speech can be made in the country, but a *verbatim* report of it appears the next day in the newspapers. As a system for reporting, Phonography, has, already, nearly superseded all other systems of Stenography, and we have daily proofs of its efficiency in the congressional reports. As a medium of correspondence, also, and, in fine, for a purposes of writing, it has come into extensive use. Ministers use it in the manuscript of sermons, lawyers, in taking evidence of witnesses, and teachers, in the multifarious duties of their profession, which require the "pen of a ready writer."

In some of the best schools of New York and Philadelphia, Phonography is taught as a regular branch of study; and in many other schools has the experiment of teaching Phonotypy been made with success. "I have no doubt," says Mr. Emerson in his report, "that it will take much less time to read phonotypically first, and heterotypically afterward, than to read by the common mode alone; inasmuch as, when one has learned the phonotypic alphabet, he may learn to read himself, without further assistance, the letters giving necessarily the true sounds of the words, and thus, the knowledge of the language once acquired, one may afterward soon read them with ease, however disguised by a barbarous heterography." The truth of this opinion has been substantiated by practical teachers in different sections of our country and in England, and is a satisfactory answer to the objection, that,

by the prevalence of Phonotypy, "all the libraries now in existence will become useless."

In one of the English Reviews (August, 1849), appeared an article on the Spelling Reform, the authorship of which is attributed to Dr. Latham, "an eminent scholar of that country." He considers every objection made to this reform, and finds but one that is "difficult to be set aside." "He satisfactorily meets the objection that words, now spelled differently, will, in Phonotypy be spelled alike, by showing that a greater number, that are now spelled alike, will, in Phonotypy, be spelled differently. The objection on the score of etymology, he completely overthrows; and also that on the ground of the instability of language."

But, says the writer, "in respect to phonetic spelling, there is only one valid reason against it, and that is the *existence of the non-phonetic system*. Whether this be conclusive, or whether it be more weighty in itself than any number of other reasons combined, is another matter. As it is, the contest is a mere matter of relative strength—reformer *versus* conservative."

QUEER TRANSLATION.—A Parisian author has translated Shakspeare's line "Out brief candle!" into French thus—"Get out short candle!" and "Lay on Macduff!" "Hit him again Mr. Macduff." This is not as bad as a translation of an exclamation of Milton's, "Hail! horrors, hail!" into "How d'ye do, horrors, how do you do?"

EDUCATION.—A science succinctly summed up in the profound exhortation of the American philosopher: "Rear up your lads like nails, and then they not only go through the world, but you may clench them on t'other side."—*Thos. Hood.*

Ragged School in England.

[Mrs. Follen, editor of the "Child's Friend," gives the following description of the "Ragged School" in Bristol, England.]

The ragged school is, literally, what it calls itself,—a school of ragged children. Many poor people do not send their children to school, because they are ashamed to send them with decent children, in the poor and miserable condition in which they are forced, from poverty, to keep them. It was therefore thought best to induce the parents of these poor things to send them in their rags, and let them have the advantage of being cared for, and taught, for a certain part of every day. Every pains also, was taken, to induce the wretched little sufferers themselves, in the streets, to come to a place where they would be made happy and comfortable, and be well instructed. After a while, these efforts were successful; and it was an affecting sight, to witness these half-clothed, ragged and dirty little creatures, all gathered together, with smiling faces, and learning, not only to read, and spell, and write, but some of them to make shoes, others, panta-

loons and jackets, others again, to knit, or to sew. We went into the shoemakers' and the tailors' room; and there were these little fellows working as merrily, and looking as cheerful and as good, as children will, if they have a fair chance in the world. They are paid for all the work they do, and little rewards are often administered as aids to their newly born virtue.

There seems to be a necessity that these children should remain as they are found, in their rags; for, if they had better clothes put on them, the parents, many of them, would take them off and sell them for drink; and besides this, the expense would be too great, as it would not do to give anything to one, that you did not give to all; as it produces jealousy and unkind feelings toward each other. The little ragged community will not allow it. But as an evidence of their sense of justice, my friend related one fact to me. She told me, that the parents of some of these children were so poor, that in the winter time, when cheap provisions were not so plenty as in summer, they did not give their children enough to eat. The managers of the school, at such times, had a quantity of soup made, and distributed it to those whom they thought the most needy. At these times, the children who got something to eat at home, withdrew their claim, and enjoyed seeing their poorer companions fed, while they had nothing, thus showing their sense of justice. Never did I see a happier, merrier set of children than these were, their rags, and bare feet, and dirty faces notwithstanding. If there ever was a true and noble charity, it is this. In no school that I entered, did the teacher ever seem to me to have a deeper interest in, or a truer affection for, her charge.

Young Channing.

Thanks to my stars, I can say I have never killed a bird. I would not crush the meanest insect which crawls upon the ground. They have the same right to live that I have, they received it from the same Father, and I will not mar the works of God by wanton cruelty.

I can remember an incident in my childhood, which has given a turn to my whole life and character. I found a nest of birds in my father's field, which held four young ones. They had no down when I first discovered them. They opened their little mouths as if they were hungry, and I gave them some crumbs which were in my pocket. Every day I returned to feed them. As soon as school was done, I would run home for some bread, and sit by the nest to see them eat, for an hour at a time. They were now feathered and almost ready to fly. When I came one morning, I found them all cut up into quarters. The grass round the nest was red with blood. Their little limbs were raw and bloody. The mother was on a tree, and the father on the wall, mourning for their young. I cried, myself, for I was a

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child. I thought, too, that the parents looked on me as the author of their miseries, and this made me still more unhappy. I wanted to undeceive them. I wanted to sympathize with and comfort them. When I left the field, they followed me with their eyes and with mournful reproaches. I was too young, and too sincere in my grief, to make any apostrophes. But I can never forget my feelings. The impression will never be worn away, nor can I ever cease to abhor every species of inhumanity toward inferior animals.—*Dr. Channing.*

The Rhinoceros.

The Rhinoceros is a native of Asia and Africa, and is usually found in those extensive forests that are frequented by the Elephant and Lion.—This animal is found in Bengal, Siam, Sumatra, Java, in Abyssinia, and about the Cape of Good Hope. But the species is not as numerous, or so universally spread, as that of the Elephant.

The Rhinoceros, in nature, is much like the hog; blunt, grunting, without intellect, and without aptness to be taught. Like the hog, he is much inclined to wallow in the mire. Being fond of damp, marshy places, he seldom leaves the banks of rivers. He is not useful to man, like the Elephant, but rather injurious, as he makes great destruction in fields of grain, &c.

He feeds upon herbs, thistles, and prickly shrubs, and seems to prefer this wild food to the sweet pasture of the meadows. He is fond of sugar cane, and also eats all sorts of grain.—Having no taste for flesh, he does not molest small animals, and does not even fear the larger ones. Though he lives upon vegetables, he does not chew the cud.

Next to the Elephant, the Rhinoceros is the most powerful of all quadrupeds. He is twelve feet in length from the extremity of the snout to the tail; is from six to seven feet in height; and has a body nearly equal in circumference to its length.

Though he is nearly equal to the Elephant in bulk, he appears much smaller, because his legs are shorter in proportion to his size. He is covered with a rough, naked skin, which lies upon the body in two folds. It is similar in color to the skin of the Elephant, being of a dirty, brown color, but is much thicker and harder. He is never troubled with bites of flies and musketoes, or stings of bees, for his hide is so thick and hard, that it will resist even a musket ball.

The Rhinoceros takes its name from the horn on its nose—Greek *rin*, a nose, and *keras*, a horn. This horn grows from the animal's snout sometimes from three to four feet in length, and six or seven inches in diameter at the base. It is commonly of a brown or olive color; yet some are gray, and even white. Some of these animals have two horns on the nose; one situated above the other, the upper one being the smallest.

It is with this weapon that the Rhinoceros defends himself. This horn is composed of a very solid substance, and pointed, so as to inflict the most fatal wounds. He has no cause for fear, as he is defended on every side with a thick, horny hide, which the claws of the Tiger and the Lion are unable to pierce, and armed in front with a weapon that even the Elephant does not choose to attack.

Scenery in Oregon.

Among the scenes described in Capt. Fremont's work on Oregon and California, one of the most beautiful and striking is the "Pyramid Lake."

The exploring party, on their homeward journey, having reached a defile between mountains descending rapidly about 2,000 feet, saw, filling up all the lower space, a sheet of green water, some 20 miles broad. "It broke upon our eyes like the ocean," says the narrator. "The neighboring peaks rose high above us, and we ascended one of them to obtain a better view. The waves were curling in the breeze, and their dark green color showed it to be a body of deep water. For a long time we sat enjoying the view, for we had become fatigued with mountains, and the free expanse of moving waves was very grateful. It was set like a gem in the mountains, which, from our position, seemed to enclose it almost entirely. At the western end it communicated with the line of basins we had left a few days since; and on the opposite side it swept a ridge of snowy mountains, the foot of the great Sierra.

"Where we had halted, next day, appeared to be a favorite camping place for Indians.

"January 13.—We followed again a broad Indian trail along the shore of the lake to the southward. For a short space we had room enough in the bottom, but after traveling a short distance, the water swept the foot of the precipitous mountains, the peaks of which are about 3,000 feet above the lake.

"We did not get the howitzer into the camp, but were obliged to leave it on the rocks until morning. We saw several flocks of sheep, but did not succeed in killing any. Ducks were riding on the waves, and several large fish were seen. The mountain sides were covered with the calcareous cement previously mentioned.

"The next morning the snow was rapidly melting under a warm sun. Part of the morning was occupied in bringing up the gun: and, making only nine miles, we encamped on the shore, opposite a very remarkable rock in the lake, which had attracted our attention for many miles. It rose, according to our estimate, 600 feet above the water, and from the point we viewed it, presented a pretty exact outline of the great pyramid of Cheops. Like other rocks along the shore, it seemed to be encrusted with calcareous cement. This striking feature suggested a name for the lake, and I called it Pyramid Lake; and though it may be deemed by some a fanciful resemblance, I can undertake to say that the future traveler will find

a much more striking resemblance, between this rock and the Pyramids of Egypt, than there is between them and the object from which they take their name."—*Fremont's Journal.*

Passage of Musket Balls through the Human Body.

A number of curious cases of the progress of musket balls from the place where they were first lodged, have been observed by military surgeons. We have heard of a very remarkable case, where the musket ball struck the forehead above the nose, and having divided into two halves, one half went round beneath the skin, on the right side, and the other on the left, advancing in contact with the skull. We do not ask our readers to believe the poetical edition of this fact, that the two half bullets met again behind, after having performed the circuit of the head in opposite directions, and, advancing with a slightly diminished force, united and killed an unfortunate man who stood in their way. But the fact of the splitting of the bullet, and the advance of each half in opposite directions is unquestionable.

The singular progress of a musket bullet from the forehead to the throat, has been recorded by Dr. Fielding. At the first battle of Newbury, in the time of the civil wars, a medical gentleman was shot near the right eye. The skull was fractured near the place, but though the surgeon could see the pulsation of the brain beneath the wound, yet the bullet had turned to one side, and could not be discovered. Various bones were discharged from the wound, the mouth, and the nostrils.

At the time of the second battle of Newbury, the wound healed, and could not be kept open; but about twelve years afterwards, when the doctor was riding in a cold, dark night, he felt a pain on the left side of his head, about the "almonds of the ear," which occasioned a partial deafness. Having stopped his ear with wool, he was surprised one day in March, 1670, by a sudden puff, or crack in his ear, when all that side of his cheek hung loose, as if it had been paralyzed, and a hard knot was felt under the ear. Various tumors now appeared about the throat, and in August, 1672, the bullet was taken out of the throat, near the *pomium Adami*.—*Frazier's Magazine.*

GOOD INVESTMENT.—Massachusetts has about three millions of dollars invested in school-houses. Mr. Everett it was who said so quaintly, "If you reduce the wages of the schoolmaster, you must raise those of the recruiting sergeant."

COLLEGE.—A number of gentlemen in Boston, propose establishing a College for the purpose of suitably educating young men in Engineering, Mathematics, Mechanics, Drawing, etc. It is to be a Mechanic's College, under the auspices of the Massachusetts Mechanic's Association.

THE SALARY OF THE MAYOR.—The salary of the Mayor of Boston is \$2,500.

The salary of the Boston Latin School Master is \$2,400.

Dr. Locke's Electro-Chronograph.

It is well known that Congress at its last session appropriated \$10,000 to be paid to Dr. Locke for one of his electro-chronographs, to be erected by him at the National Observatory in Washington. This instrument has now been finished in Boston and forwarded to its destination. Much curiosity has been excited in regard to this important invention, and we have compiled from a great variety of sources, a description, which it is hoped will serve to convey some idea of the working and purposes of the electro-chronograph.

The object of this instrument is for the determination of the exact period, to the hundredth or even the thousandth part of second, of a transit or other astronomical observation by which longitude may be ascertained. The difference of longitude of any two places, it is well known, is determined by observing the period of the occurrence of certain celestial phenomena, such as eclipses, transits, occultations, &c. In order to insure perfect accuracy, the utmost exactitude in regard to time, even to the fractional part of a second, is desirable. The usual practice has heretofore been for the observer to note the exact time of the transit or other phenomena by listening to the beats of a clock or chronometer, and estimating the fraction of a second between two beats when the event occurs. This requires a nicety of hearing only attained by long practice, and, when attained, still far from being a perfect measure of time. By the invention of Dr. Locke, the observer can record the exact time on a fillet of paper, without taking his eye from the telescope.

The instrument of Dr. Locke, which he has termed an Electro-Chronograph, is a combination of the magnetic clock, Morse's telegraphic register, and a break-circuit key, or instrument for interrupting the magnetic circuit. The first, or magnetic clock, was invented in England, by Mr. Wheatstone, about the year 1841. An invention of a similar character was also made by Mr. Bond, of the Observatory at Cambridge. Its object is to make several clocks on the same telegraph line, even at a distance of hundreds of miles, mark the same instant of time. This is done by breaking the circuit of the magnetic fluid at each second of time. The method of interrupting the circuit in the clock of Dr. Locke is different from that adopted by Wheatstone, and has this advantage, that it cannot alter the rate of the most delicate astronomical clock. With this clock is combined a register, by which, instead of the beats of the clock at one extremity of the telegraph line being made audible only, as was contemplated by Wheatstone, they are made visible as well as audible, by being imprinted on a fillet of paper which revolves around a drum. In the Morse register, when the magnetic circuit is unbroken, a continuous line

The magnetic clock of Dr. Locke interrupts the circuit at each second, and produces breaks which represent the second on the fillet of paper at the other end of the line.

The dashes or lines between each break are exactly of a length, and each break represents a second. By an ingenious arrangement of the machinery, the end of each minute, of each five minutes, and of each hour, is represented, so that the exact period when an observation is made, may be determined without counting the seconds.

The beginning of a minute is recorded by the omission of a break between two seconds, when the confluent lines extend, say an inch. The commencement of an hour is indicated by a line of double the length of the five-minute line.

The remaining part of this chronograph is the break-circuit key, by which the period when an observation is made is determined. The astronomer at any station on a line of several thousand miles in length, may imprint on the register the date of any event by simply tapping, after the manner of playing upon a piano, upon a *break-circuit key*. This imprints in the indented line a corresponding *break-circuit space*. Two or three spaces may be printed in one second, if desired. Two seconds of time is ample for the equatorial interval of the wires of a transit instrument. The net-work of spider-lines is divided into some nine or more tallies, or distinct groups of five wires each. All these tallies in the case of the transit of a star are imprinted on the register in the time occupied by the ordinary method of a single tally, to which a transit has been usually limited. The skill required for tapping on the key at the instant of the bisection of a star is easily acquired, and the accuracy of each imprint is much greater than that of a single record by the common method. The imprints furnish a perpetual record of the date of the event, and may be read off with great rapidity to the hundredth of a second, by means of a graduated scale of the paper used for registering.

Those who understand the general principles of the magnetic telegraph will readily comprehend the main principles of this invention. The value of it can only be estimated by the astronomer. In determining longitude, the observations of many nights, even for years, have heretofore been necessary in order to secure accuracy. With one of the clocks of Dr. Locke, the difference of longitude between the National Observatory at Washington, and any other point reached by magnetic telegraph, may be determined in *one night*, so closely as to show in what part of the building the observations were made.

Lieut. Maury, in a letter to the Navy Department, after describing the instrument, says:—“Its powers are such that the astronomer in New Orleans, St. Louis, Boston, and every other place to which the magnetic telegraph reaches,

may make his observations, and at the same moment cause this clock, here in Washington, to record the instant with wonderful precision. Thus, the astronomer in Boston observes the transit of a star as it flits through the field of his instrument and crosses the meridian of that place. Instead of looking at the clock before him, and noting the time in the usual way, he touches a key, and the clock here subdivides his seconds to the minutest fraction, and records the time with unerring accuracy. The astronomer in Washington waits for the same star to cross his meridian, and, as it does, Dr. Locke's magnetic clock is again touched; it divides the seconds, and records the time for him, with equal precision. The difference between these two times is the longitude of Boston from the meridian of Washington. The astronomer in New Orleans, and St. Louis, and every other place within the reach of the magnetic wires, may wait for the same star, and, as it comes to their meridian, they have but to touch the key, and straightway this central magnetic clock tells their longitude.

“And thus this problem, which has vexed astronomers and navigators, and perplexed the world for ages, is reduced at once, by American ingenuity, to a form and method most simple and accurate. While the process is so much simplified, the results are greatly refined. *In one night the longitude may now be determined with far more accuracy, by means of the magnetic telegraph and clock, than it can by years of observation according to any other method that has ever been tried.*”

In a later letter Lieut. Maury says:—“The magnetic telegraph now extends through all the States of this Union, except, perhaps, Arkansas, Texas, and on the frontier; so that a splendid field is presented for doing the world a service by connecting, for difference of longitude through means of the magnetic telegraph and clock, all the principal points of this country with this Observatory (Washington.) In anticipation of such an extension of the wires, I ordered an instrument for the purpose, and it has recently arrived. It is intended to determine *latitude* also,—so that by its means and this clock I hope, during the year, to know pretty accurately the geographical position of Montreal, Boston, Chicago, St. Louis, New Orleans, &c., and their difference of longitude from this place, quite as correctly as the difference between Greenwich and Paris has been established by the usual method and after many years of observation.”

FUN IN AGRICULTURE—Douglas Jerrold says, “Earth is so kind in Australia, that just tickle it with a hoe, and she laughs with a harvest.”

He who gives for the sake of thanks knows not the pleasure of giving.

Yield not to Dark Despair.

Hast thou one heart that loves thee,
In this dark world of care?
One friend whose smiles approve thee?
Yield not to dark despair.

One rose whose fragrant blossom
Blooms but for thee alone?
One fond confiding bosom
Whose thoughts are all thine own?

One gentle star to guide thee,
And bless thee on thy way,
That e'er when storms beset thee,
Will lend its gentle ray?

One crystal fountain springing
Within life's dreary waste,
Whose waters still are bringing
Refreshment to thy taste?

One tuneful voice to cheer thee,
When sorrow has distressed,
One breast when thou art weary
Whereon thy head to rest?

Till that sweet rose has faded,
And cold that heart so warm,
Till clouds thy star have shaded,
Heed not the passing storm.

Till that kind voice that blessed thee,
All mute in death doth lie,
And the fount that oft refreshed thee,
To thee is ever dry:

Thou hast one tie to bind thee
To this dark world of care;
Then let no sorrow blind thee—
Yield not to dark despair.

Facts for Young Men.

Give a young man a taste for reading, and in that single disposition you have furnished him with a great safeguard. He has found that which others have to seek abroad, namely, pleasureable excitement. He has learned to think, even when his book is no longer in hand; and it is for want of thinking that youth go to ruin. Some of those who have been most eminent in learning and science made their first attainments in snatches of time stolen from manual employment.

Hans Sachs, the poet of the Reformation and the Burns of Germany, began life as did Burns, a poor boy; he was a tailor's son, and served an apprenticeship first to a shoemaker, and afterward to a weaver, and continued to work at the loom as long as he lived. The great dramatist, Ben Johnson, was a working bricklayer, and afterward a soldier. Linnaeus, the father of modern botany, was once on the shoemaker's bench. Our immortal Franklin, it need scarcely be said, was a printer. Herschel, whose name is inscribed on the heavens, was the son of a poor musician, and at the age of fourteen years was placed in a band attached to the Hanoverian guards. After going to England, he undertook to teach music, and then became an organist. But while he was supporting himself in this way, he was learning Italian, Latin, and even Greek. From music he was naturally led to mathematics, and thence to

optics and astronomy. John Dollond, the inventor of the achromatic telescope, spent his early years at the loom; and continued in his original business even for some years after his eldest son came to an age to join him in it. Few cases are more celebrated than that of Gifford, the founder and editor of the Quarterly Review. He was an orphan, and barely escaped the poor house. He became a ship boy of the most menial sort, on board of a coasting vessel. He was afterward for six years apprenticed to a shoemaker. In this last employment he stole time from the last for arithmetic and algebra, and, for lack of other conveniences, used to work out his problems on leather with a blunted awl. Few names are more noted in modern literature.

Petrified Forest in Cairo.

There is scarcely, perhaps, a spectacle on the surface of the globe more remarkable, either in a geological or picturesque point of view, than that presented by the petrified forest near Cairo. The traveler having passed the tombs of the Caliphs, just beyond the gates of the city, proceeds to the southward, nearly at right angles to the road across the desert of Suez, and after having traveled some ten miles up a low, narrow valley, covered with sand, gravel; and sea shells, fresh as if the tide had retired but yesterday, crosses a low range of sand-hills, which has, for some distance, run parallel to his path. The scene now presented to him is, beyond conception, singular and desolate. A mass of fragments of trees all converted into stone, and, when struck by a horse's hoof, ringing like cast iron, is seen to extend itself for miles and miles around him, in the form of a decayed and prostrate forest. The wood is of a dark brown hue, but retains its form in perfection, being from one to fifteen feet in length, and from half a foot to three feet in thickness, strewed so closely together, as far as the eye can reach, that an Egyptian donkey can scarcely thread his way through them, and so natural that, were it in Ireland or Scotland, it would pass without remark for some enormous bog, on which the exhumed trees lay rotting in the sun. The root and rudiment of the branches are in many cases nearly perfect, and in some the worm holes eaten under the bark are readily recognizable. The most delicate of the sap vessels, and all the finer portions of the centre of the wood are perfectly entire, and bear to be examined with the strongest magnifiers. The whole are so thoroughly silicified as to scratch glass, and be capable of receiving the highest polish.—*Asiatic Magazine.*

The Impossibility of Aeronautation.

The editor of the Scientific Journal in Washington, has attacked the persons now at the seat of government, asking for aid to mature their plans of aeronautation by balloons, on the following grounds:

"Nothing can float in the air unless it be eight

hundred times lighter than water; such a body, therefore, must of course carry eight hundred times less power than might be used in a steamboat. But the utmost power that a steamboat can carry will not enable it to make the least headway against wind blowing two hundred miles an hour. How then is it possible for a body of eight hundred times less power, to make any headway against even a gentle wind, blowing three miles an hour.

In navigating the air, we can obtain no fulcrum but the air itself, and that is yielding, and but a small portion of even the power which can be carried, would prove effective.

If a body so comparatively solid as water, causes a loss of power, the loss must be vastly greater in a body eight hundred times lighter, and exceedingly elastic. When to all this we add eight times less power than a steamboat, and at the same time bear in mind the further fact that a steamboat cannot make the least headway against wind blowing two hundred miles an hour, the fallacy must be apparent."

The Work of the Immoral Teacher.

Horace Mann, one of the world's benefactors, in a lecture delivered in public, a few years since, illustrated the subject upon which he was treating, in the following bold and excellent figure, which we give from memory. It is too good to be left out of our columns:

"There are certain rocks, found in some parts of the earth, which bear the foot marks of ill-shaped birds and beasts of the primitive ages of the globe's formation. Geologists say that such impressions were made when these rocks were in a soft and yielding condition, and as ages passed away, this substance became hard as a stone, still retaining these uncouth impressions, there to remain, perhaps, forever! Many a mind, at this day, bears the impress of some vulture's claw—the footmarks of some beast in human shape." No bungler then, should ever presume to touch or train the immortal mind. The impressions he stamps will be uncouth—they may still be there when the possessor shall stand in the presence of the Eternal! Better suffer a mortal disease to visit the school room, or an invidious reptile to leave its venom there, than permit a person to be a guide and teacher of the young, when his precept and example are counter to virtue. Though life may be destroyed, yet the innocent departed spirits will never have been polluted by vice, and the cause of righteousness will have less to contend with.

B.

LEISURE HOURS.—It was a beautiful observation of the late William Hazlit, that "there is room enough in human life to crowd almost every art and science in it. If we pass 'no day without a line'—visit no place without the company of a book—we may with ease fill libraries or empty them of their contents. The more we do, the more we can do; the more busy we are, the more leisure we have."

From Fowler's Journal.

Edgar Allan Poe.

This gifted son of genius and misfortune died at Baltimore in October last, aged thirty-seven. His phrenological developments, combined with the fiery intensity of his temperament, serve to explain many of the eccentricities of this remarkable man. His mother was an actress of great merit, and he inherited from her strongly developed and highly excited faculties, an unusual degree of intellect, Ideality, Sublimity, Spirituality, and Language. We mean that he inherited in sublimated embodiment all of ORGANIZATION that his mother possessed, together with all that unearthly intensity and ethereality which her profession as an actress awakened. Left an orphan at an early day, and being constitutionally averse to restraint, and surrounded as he was by associates ill adapted to moderate and mold the wild enthusiasm of his nature, he released himself from the control and roof of his foster-father, Mr. Allan, and boldly shot off in a tangent, gleaming like a meteor in the heavens, to delight and amaze, attract or astonish. Such was he in social life and in the world of letters. Ambitious, sensitive, and critical in a high degree, he found himself surrounded by those who could neither understand his nature, appreciate his talents, nor sympathize with his erratic spirit. The wine cup was the bane of his being, and brought out the worst phases of his character, and although his friends claim that this one fault was the procurer of all his waywardness and gained him all his enemies, yet we believe that, artificial excitement aside, he was from the very nature of his organization a wandering star, which could be confined to no orbit and limited to no constellation in the empire of mind. The melancholy tendency of his mind was heightened by the loss of his earliest object of adoration, and "Leonor" was the burden of every sigh, as "Mary" was to Scotia's sweetest bard. Poverty and dissipation soured his nature, and he reversed his heat and light against the world to seethe and blight what, under more favorable auspices, might have illuminated and warmed to a happy assimilation to himself. We extract the following, from the pen of Rufus W. Griswold:

"His conversation was at times almost supramortal in its eloquence. His voice was modulated with astonishing skill, and his large and variably expressive eyes looked repose or shot fiery tumult into theirs who listened, while his own face glowed, or was changeless in pallor, as his imagination quickened his blood or drew it back frozen to his heart. His imagery was from the worlds which no mortals can see but with the vision of genius. Suddenly starting from a proposition exactly and sharply defined in terms of utmost simplicity and clearness, he rejected the forms of customary logic, and by a crystalline process of accretion, built up his ocular demonstrations in forms of gloomiest and ghastliest gran-

deur, or in those of the most airy and delicious beauty—so minutely and distinctly, yet so rapidly, that the attention which was yielded to him was chained till it stood among his wonderful creations—till he himself dissolved the spell, and brought his hearers back to common and base existence, by vulgar fancies or exhibitions of the ignoblest passion.

He was at all times a dreamer—dwelling in ideal realms—in heaven or hell—peopled with the creatures and the accidents of his brain. He walked the streets, in madness or melancholy, with lips moving in indistinct curses, or with eyes upturned in passionate prayer, never for himself (for he felt, or professed to feel, that he was already damned,) but for their happiness who at the moment were objects of his idolatry. Or, with his glances introverted to a heart gnawed with anguish, and with a face shrouded in gloom, he would brave the wildest storms; and all night, with drenched garments, and arms beating the winds and rains, would speak as if to spirits that at such times only could be evoked by him from the Aidenn close by whose portals his disturbed soul sought to forget the ills to which his constitution subjected him—close by the Aidenn where were those he loved—the Aidenn which he might never see, but in fitful glimpses, as its gates opened to receive the less fiery and more happy natures whose destiny to sin did not involve the doom of death.

He seemed, except when some sinful pursuit subjugated his will and engrossed his faculties, always to bear the memory of some controlling sorrow. The remarkable poem of THE RAVEN was probably much more nearly than has been supposed, even by those who were very intimate with him, a reflection and an echo of his own history. He was that bird's

"Unhappy master, whom unmerciful Disaster
Followed fast and followed faster till his songs one bur-
den bore—
Till the dirges of his Hope that melancholy burden bore
Of 'Never—nevermore.'"

Napoleon.

From the 'Confidences' of Lamartine is taken the following interesting sketch of the Emperor, on his return from Elba:

I saw the Emperor pass a review upon the Carrousel. It needed the prism of glory and the illusion of fanaticism to see in his person, at that epoch, the idea of intellectual beauty and of innate royalty, with which the marble and the bronze have since flattered his image, that we may adore it. His head was buried in his shoulders. His large and livid cheeks overhung the tight collar of his uniform. His complexion, yellow as an orange, seemed to sweat with care. His brow was wrinkled by the anxieties of his station. His eye, deep-set and unquiet, ranged restlessly over the troops and the people. His beautiful and well-modeled mouth smiled mechanically on the crowd, while his thought was visibly elsewhere. A certain air of doubt and hesitation be-

trayed itself in all his movements. One saw that the earth was not solid under his feet, and that he wavered upon his throne with his fortune. He did not well know whether his entry into Paris was a success or a snare of his star. The troops in defiling before him, cried, 'Vive l'Empereur,' with the contracted accent of despair. The people of the Faubourgs, proffered the same clamors in a tone more menacing than enthusiastic. The spectators were silent, and exchanged low words and glances of intelligence. It was easy to see that hatred coveted and espied a fall, in the midst of the display of his force and of his triumph. The police watched all faces.

Clay, Webster and Calhoun.

The following fine sketch is cut from the Pennsylvanian:

To any one who has been in the habit of visiting Washington during the present winter, nothing will impress him more than the appearance, respectively, of the venerable statesmen, whose names we have placed at the head of this article. The stranger, who comes, to the National Capital for the first time, even before he has seen Pennsylvania Avenue, asks to be shown Clay, Webster and Calhoun. And when they are pointed out to him, how he will be surprised! Younger-looking, and younger really than either is Mr. Clay, and amazingly vigorous too, (as his last great speech in the Senate will show;) and yet what a shadow he is of the bold, fearless, and dashing statesman, who, for the best part of half a century has electrified our new world by his eloquence, and agitated it by his measures; and who is at this moment a living link connecting the Present with the Past! See him in his blue cloak, with long sleeves, cane in hand, ambulating the streets with wide but uncertain steps, and head declined, with all his efforts to keep it erect; and the stranger will be disappointed, even if the more observant and more experienced spectator is pleased to see the veteran wear so well.

Take, next, Daniel Webster! Upon him the change effected by a few brief years has been terrible. Time has passed heavily over him.—He walks with slow and measured stride to the Senate Chamber, and pays little attention to those who gaze upon him. His cheek is palid. His clothes hang loosely upon his feeble frame. His step is not firm. But look into his eye, which, deep as a diamond in a cavern, glows in his head, and you will see that intellect was burning bright within him. Note him in his seat in the august Senate Chamber. Sombre, silent, and solitary, he sits apart, rarely replying to an appeal, and literally glowering upon the busy scene before him, without taking part in the exercise. But rouse that massive mind; and then, all men, all parties, bow before the genius that has illuminated our annals and defended our Constitution. We are not politically a disciple of Webster; but we thank God that such a man as he is still

living, to remind us that there are duties that rise entirely above party.

And now for J. C. Calhoun. The last time we saw Mr. Calhoun was on a cold day in December, as with his closely buttoned surtout, (for he wore no cloak) he rapidly walked to the capitol. His step was firm—his form erect—his eye bright as a star in a moonless sky. Glorious Calhoun! we differ from thee in some things; and yet we admire and venerate thee.—Here, now, is a purely intellectual man. He worships his favorite studies; cares nothing for the festive board; eats sparingly; and luxuriates either in elucidating some difficult problem, or in speaking to chosen friends of his darling South, her duty and her destiny. Mr. Calhoun's conversational powers are extraordinary. He talks easily, elegantly, and with exquisite clearness. His friends love him not so much for his cause, as for the manner in which he sustains his cause. He is an unexceptionably moral man. His severe tastes and stern example have made a school of somewhat ascetic politicians in South Carolina. They are certainly disinterested. They are unquestionably independent. And they are notoriously brave and thorough going in whatever they undertake. We do not specially admire their examples, but we should like to see the North imitating South Carolina in two things, at least; and those are, in sending none but her best men to Congress, and in keeping them there until they are no longer fit to reflect credit upon themselves and their constituents.—This is the secret of Southern ascendancy at Washington, so much complained of by shallow politicians in the North.

From the Cleveland (Ohio) Plain Dealer.

Hon. J. C. Fremont.

The history of this young man is highly interesting. A few years ago he was a Lieutenant in the army, and an attach to the corps of Topographical Engineers. His business called him much to Washington, where he became acquainted with the second daughter of Hon. Thomas H. Benton. Young, vivacious, and ambitious, this stripling in epaulets had the temerity to ask the young lady's hand in marriage—notwithstanding he knew those much higher in authority had solicited the same in vain.—Miss Benton most readily consented, so far as she was concerned, but intimated that she had a Father, who had manifested some degree of interest in her welfare, and might want to be consulted in the matter. She laid the "proposal" before the old gentleman. He objected to the proposition *in toto*. "His daughter, educated for a Prince, was not going to marry a Corporal." Fremont was forbidden to enter his domicil, and Miss Benton was put under guard. "Old Tom" had overacted the matter. He did not know the young Lieutenant. His daughter, too, took the occasion to show her Benton, and, as "Old Tom" had stuck to the "Expunging Resolu-

tions," she was bound to stick to her young lover against all the world. The next the anxious father knew of his once devoted daughter, she had escaped her keepers, and in a private parlor at Gadsby's Hotel was interchanging vows before a magistrate with the banished Lieutenant.

At first the old man raged, but soon was made acquainted with the *metal* of his new son-in-law, a reconciliation took place, and in Old Tom, Fremont has not only had a friend, but an admirer ever since.

His travels, researches, scientific explorations, and feats of valor and suffering in the Far West, are events known to the world, and, we may say, without a parallel.

His collision with Kearney in California brought him before the country in a new light. He was accused of disobeying the commands of his superior and, technically, was so convicted on trial by a Court-Martial, demanded by himself. But the country acquitted him, and although reprimanded by the President, he was applauded by the people. We were present at his trial in Washington, and saw him confront the witnesses for the Government in the most frank and gallant style. "Old Tom" sat by him as counsel, and "solitary and alone" he encountered the craft of Kearney and contumely of a Naval and Military Court, prejudiced against the aspiring young Lieutenant, then luxuriating with the rank of Colonel. Dismissed from the army, he was scorned to be reinstated, but he recommenced his explorations on his own account. He raised a company of men and started for California by a new route, with "Kit Carson," his famous old guide at their head. Ten of his men he lost in the mountains by being imbedded in snow and literally starving to death. With the remnant he reached San Francisco, and has been spending the summer at the mines. In the mean time a Commission reaches him superseding Col. Weller as Boundary Commissioner under the late treaty with Mexico. This he declines, and the next we hear of him, he is elected a United States Senator from the new State of California, and probably set sail in the January steamer for Panama, on his way to Washington.

Mr. Fremont is hardly of medium size, spare and light, with dark hair and eyes. His temperament is nervous, his countenance highly intellectual and pleasant, and his manners agreeable. He will be the youngest member of the Senate, his age being less than forty. With the exception of Sam Houston, no Senator in that body can boast so eventful a life.

D Genius derides impossibilities. "It is impossible," said one of his colleagues in office, to William Pitt, afterward Lord Chatham. "Impossible!" he exclaimed, with noble scorn—"I trample upon impossibilities!"

D Douglass Jerrold says that dogmatism is puppyism come to its full growth.

Impudence.

In one of the charming letters of Lady M. W. Montague, written to her husband, we find the following eulogy upon impudence. The value of the article has little, if any, decreased since the time of that learned lady.

"I am glad you think of serving your friends. I hope it will put you in mind of serving yourself. I need not enlarge upon the advantages of money; every thing we see, and every thing we hear, puts us in remembrance of it. If it were possible to restore liberty to our country, or to limit the encroachment of the prerogative, by reducing yourself to a garret, I should be pleased to share so glorious a poverty with you. But as the world is, and will be, 'tis a sort of duty to be rich, that it may be in our power to do good; riches being another word for power; towards the obtaining of which the first necessary qualification is Impudence, and (as Demosthenes said of pronunciation in oratory) the second is impudence, and the third, impudence. No modest man ever did, or ever will make his fortune. Your friend, Lord Halifax, R. Walpole, and all other instances of quick advancement, have been remarkably impudent. The ministry, in short, is like a play at court. There is a little door to get in, and a great crowd without, shoving and thrusting who shall be foremost; people who knock others with their elbows, disregard a little kick of the shins, and still thrust heartily forwards, are sure of a good place. Your modest man stands behind in the crowd, is shoved about by every body, his clothes torn, almost squeezed to death, and sees a thousand getting in before him, who don't make so good a figure as himself.

Extempore Rhyming.

Bartholomew Willard (called "Barty," for short,) was once well known in the north of Vermont for his careless vagabond habits, ready wit, and remarkable facility at extempore rhyming. Sitting one day in a village store, among a crowd of idlers, who always gathered about him on his arrival, the merchant asked Barty why he always wore that shocking bad hat. Barty replied that it was simply because he was unable to purchase a new one. "Come" said the merchant, "make me a good rhyme on the old one immediately—without stopping to think—and I will give you the best castor in the store." Whereupon Barty threw his old hat on the floor and began:

"There lies my old hat,
And pray what of that?
'Tis as good as the rest of my raiment!
If I buy me a better,
You'll make me your debtor,
And send me to jail for the payment."

The new hat was adjudged to belong to Barty, who wore it off in great triumph saying it was but a poor head that couldn't take care of itself.

THE SCHOOL FRIEND, AND OHIO SCHOOL JOURNAL.

CINCINNATI, MAY 1, 1850.

SCHOOL GOVERNMENT.

The subject of School Government is universally considered to be one of primary importance, and the ability to govern a school easily, and successfully, has ever been regarded as one of the most desirable qualifications a teacher could possess. In former times, this ability was more generally supposed to be a *gift* vouchsafed to some few favored individuals, for whom it was perfectly natural and easy to exercise it, while those not thus gifted could never be expected to acquire it. But since the subject of education has received more attention, and the nature of the human mind has been better known, the opinion has obtained, among the intelligent, that the power to govern, like the ability to teach, or impart instruction in an interesting and attractive manner, is a power which any intelligent person, who will give the subject proper attention and make the necessary effort, may acquire; or, in short, that the ability in question is an *acquired* rather than a *natural* one, so to speak.

Assuming this opinion to be correct, in the main at least, and that persons, who have not succeeded to their satisfaction in the government of their schools, may, by proper effort, improve in this respect, I proceed to mention some of the traits of character which may be regarded as

PREREQUISITES FOR THE SUCCESSFUL GOVERNMENT OF A SCHOOL.

These are, 1. *Self-knowledge*. A person must know his own strength and his own weakness, his defects as well as his excellencies, or he cannot expect to guard against the one, or make a proper use of the other; in short, he should, if possible, have a just and discriminating estimate of himself, not only as he seems to himself, but as he appears to others. To acquire this will require rigid self-examination and scrutiny, and a judicious use both of the compliments of friends and the criticisms of foes.

2. *Self-control*. By this is here meant, not merely such a degree of self-restraint as shall prevent one from manifesting anger in cases of provocation, and undue forbearance at other times, but that quiet self-possession which ever indicates a well-balanced mind, and which is the true secret of abiding and controlling influence over others.

3. *Self-respect*. By this I do not mean self-esteem, a high idea of one's own importance or of the dignity of his station, but a just estimate of himself, a correct idea of what is due to himself and his station, and a proper feeling of confidence in his own abilities to discharge his duties, to command obedience, to enforce authority if necessary, and yet without bluster or bravado, without resorting to threats or punishments hastily administered. The possession of proper self-respect may be regarded as one of the characteristic traits of those distinguished for a large share of good common sense.

4. Worth enough to command the respect of others. A Poet has well said,

"Our hearts ne'er bow but to *superior worth*,
Nor ever fail of their allegiance there."

Whatever a person's estimate of himself may be, to whatever extent he may, for a time, secure the esteem or win the confidence of those around him, he can never expect to command and retain the sincere respect of others unless he deserves it. The characteristics here alluded to may be spoken of under the head of intellectual, social and moral worth. To say nothing of habits which may be regarded as physical, as the indulgence of unnatural appetites, &c. the mental capacities

of the teacher must be good, his perceptive and reflective powers must be well cultivated, or he cannot expect to command the respect of his employers or scholars; his attainments in science, especially in the branches he professes to teach, must be at least respectable, and he must show himself willing to improve, and possessed of the ability to improve, or he can hardly expect to secure confidence; again, his habits, his manners, his language, his style of intercourse with his scholars, with their parents, and with society in general, are matters not to be overlooked; and, finally, his whole deportment must exhibit a consistency of character which can result only from the previous adoption of right principles, and the habitual subjection of his conduct to the rules of rectitude.

Without the possession of most or all of these prerequisites, no person can expect to govern a school with any considerable measure of success. L.

ENGLISH GRAMMAR.

PUNCTUATION.

Within the last ten years, many important improvements in the method of teaching English Grammar, have been made, especially in the Public Schools of Philadelphia, New York, Providence, Boston, and in the State Normal School, at Albany, N. Y. Formerly, only a part of the subject was taught, and even that, defectively. The study and the exercises were generally restricted to the memorizing of definitions, the rules of Syntax, and to parsing. The result was, an utter failure to accomplish what was proposed by the study, viz: to acquire the "art of speaking and writing the English language with propriety."

The improvements recently introduced, particularly in the schools just referred to, consist in giving a due proportion of study to every department of the subject, and in a much wider range of *practical exercises*. As soon as the definition of a noun is learned, the pupils are each required to write upon a slate or black-board, or give orally, an expression containing a noun; and so of each of the other parts of speech.

When they understand the meaning of a common, proper, collective and participle noun, they construct expressions embracing one or more of these. In like manner, they proceed with the classes or subdivisions of the adjective, verb, pronoun, &c. Having defined the modifications, or accidental properties of the noun, such as its gender, number, person and case, and studied the directions for their formation,—they next proceed to the formation of phrases, expressions, or sentences, embracing such modifications of the noun, as the teacher may designate. The same course is taken with the modifications of the other parts of speech.

The meaning or definition of a phrase, clause, and sentence, simple, complex and compound, being properly explained, the next step in the process is, to construct orally or in writing, a great variety of these. As soon as the first rule of Syntax is memorized, with its observations and remarks, if any, the pupils are required to form a large number of sentences containing words, the parsing of which would require the application of one or more of said rules and observations; such words being particularly designated at the time, their syntactical construction pointed out, and the rules applied. All the rules, observations and remarks of Syntax are, in like manner, reduced to practice as the pupils advance.

Our purpose in writing this article is, mainly, to call the attention of teachers to the importance of giving more attention to the subject of punctuation in connection with the study of English Grammar; and to commend the ingenious manner in which the pupils in the public schools of Philadelphia are taught accurately to divide a written composition by means of points.

The subject of punctuation is taught, *pari passu*,

with the rules of Syntax, and in the following manner. In connection with two or three rules of Syntax, as many of punctuation are assigned, with specific directions to prepare for a written or oral exercise at the next recitation. When the pupils have recited the rules of Syntax and applied them in a practical exercise as already explained, they then take up the subject of punctuation as follows: 1. They recite the rules assigned for the lesson. 2. They construct sentences or expressions, requiring an application of the rules in their order, designating the place where the point should be placed. 3. The teacher constructs the sentences, and the pupil determines the place of the point and assigns the reason or rule. 4. The teacher dictates to the class from a book, phrases, expressions, sentences, or even entire paragraphs; and then some one in the class is requested to designate the first place requiring a point, and render a reason, or give the rule; a second pupil determines the place of the next point, and gives the reason, and thus the teacher proceeds until the entire sentence or paragraph is duly punctuated. 5. The pupils are required to correct false, or erroneous punctuation, and to observe the change of meaning consequent upon a change of punctuation. In like manner, the proper use of capital letters is practically taught. To some extent, a like course is pursued with the subject of Prosody. Another peculiarity in the mode of teaching punctuation, was noticed, and that was in the order pursued. The proper use of the period being first inculcated by a series of exercises as above stated; second, the mark of interrogation; third, the note of exclamation; fourth, the quotation marks; fifth, the comma; sixth, the semi-colon; seventh, colon; eighth, dash; and ninth, parenthesis. The marks peculiar to orthography,—such as the hyphen, the apostrophe, and diaeresis, receive, of course due attention; and the caret, section, paragraph, brackets, brace, asterisk, &c., are not overlooked.

In dictating a sentence, or series of sentences, to the class, care should be taken to pronounce the words at uniform intervals and with uniform inflection, so as not to indicate, by the tone of voice, where the points ought to be placed.

AN EXERCISE IN HISTORY.

We have used the following method in conducting recitations in history, and have, we think, succeeded in keeping up the animation and eager curiosity of our pupils. This is necessary to render the study profitable. The text book should be divided into short sections convenient for being memorized. The lesson should be quite short, and rigidly committed to memory, both by teacher and scholar. This can be quickly and easily done after a little practice, and leaves the teacher free to use his hands, eyes, or tongue, for any purpose required by the exigencies of the class. One object in learning it "by heart" is to give all parties absolute command over the grammatical, rhetorical, and historical construction of the lesson. After the task has been thoroughly mastered, so as to be repeated with almost perfect fluency, the teacher calls on some one to repeat a verse. Then commences the quizzing. Questions of all possible kinds, relating to geography, grammar, rhetoric, history, &c. are to be poured out in rapid succession by the teacher. If the verse or sentence contains words whose ideas can be conveyed by other words or phrases, all these are to be drawn out. If the idea of the historian has been fully ascertained, his judgment and taste is to be called in question, as to whether the idea has been clothed in a garb of proper strength, spirit, and beauty.

Thus, the lesson, says, that "as a source of useful and interesting knowledge, the History of England surpasses that of all other countries." The teacher calls for words, which in the same connection convey about the same meaning as "source." One pupil after another answers,

spring, origin, treasure, mine, well, collection, granary, store-house, &c. So also, "useful," profitable, beneficial, advantageous, instructive, valuable, gainful, serviceable. Also "interesting," pleasing, entertaining, pleasurable, agreeable, attractive, exciting, animating, amusing, diverting, inviting. Also, "knowledge," information, instruction, wisdom, learning, &c. Also, "history," record of events, statement of transactions, narrative of what has happened, story of what has transpired, &c. "England" with some of its geographical peculiarities, is then to be introduced to the attention of the class. Also, "excels," surpasses, rises above, exceeds, goes before, is to be preferred, stands pre-eminent, &c. A few weeks practice in this rapid and thorough drilling, with short lessons, will impart to the pupils great facility in grasping at once all the ideas of the historian with their remote connections, and will give them more real history than a much longer time of study by questions alone. A few chapters completely mastered in this way will be far more advantageous than many studied superficially. Every page of the histories used in our schools is like the thin lava soil of volcanic regions. It covers many fire-scarred, desolated, realms of the dead. The eye, voice and gesture of the living teacher alone can bring to view the world that lies beneath.

Before his class, the teacher of history should stand as a powerful magician, conjuring back the wild and wonderous events which every sentence of the lesson unfolds. To him it belongs to light up the awful drama which the historian of a dead world presents dimly to view. His imagination should illumine the darkened page, and his voice call up the spirits of the past. The sturdy warrior should come up, clanking his iron mail, with his spear, and sword, and buckler, and grim look, and heavy tread. The wise lawgiver should come up with the crimes he has checked and the happiness he has diffused. The battle field should come up with its streams of gore, its gaping wounds, broken armor, shrieks and groans, and death spasms of dying men, its heaps of dead, its fiery looks, its wrathful struggles, its vengeful thrusts and mortal agonies; the flight of the vanquished and triumph of the victors, its fearful stillness when death has done, the gashed and ghastly corpses when the spoiler has passed, the croaking vulture, the flame eyed wolf, and the sickening smell of blood and rotting flesh. Dethroned kings should come up, and assembled councils, tramping armies, regions desolated by war or beautified by peace, subjects excited to rebellion or smiled on by quietness and prosperity; and manners and customs painted to the life.

ITEMS.

1. A publishing house in this city lately presented to each of our thirteen public schools, a copy of the large crown quarto edition of Webster's Dictionary.

2. It is rumored that at the close of the present school year, three of our male principals will end their connection with the public schools.

3. For once, since the time of Dionysius, the royal pedagogue, Fortune has deigned to smile upon a schoolmaster. At a late musical concert given by the celebrated violinists, Simon, and Tosso, a splendid piano was offered as a prize, to be drawn for by each individual who bought a dollar ticket. Eight hundred of the tickets were held by different persons, but the piano was drawn by Mr. U. Rice, a teacher in the Eighth Street School.

4. Our Eastern Colleges should be a little more circumspect in regard to the men they send out to us, or they will get a bad reputation. Within a short time, three graduates of Eastern Colleges have been before our Board of Examiners, and failed to obtain

even the lowest class of certificates for teaching a Common School. The strongest reason one could urge for being grossly ignorant of Arithmetic, Geography, and History, was, that he had been to College for the last seven years and had not had time to attend to these things.

5. Our Common School concerts of vocal music are getting to be the lion of the day. That of the Ninth Street School was reported a short time ago with considerable eclat. The Upper Race Street, and the Fourth Street schools are to give a concert in a short time. The object of these public exercises is to obtain for their respective schools pianos, for the use of the scholars. The Twelfth District School is endeavoring to obtain a piano by subscription among the parents of the pupils.

H. N. Robinson, author of an "Astronomy," etc., is about to send out a Geometry. One peculiarity of it is to be a large number of unsolved original theorems and problems.

6. The second edition of "Green's First Lessons in Grammar," introductory to "Green's Analysis," has been laid on our table. Mr. Green's system satisfies a want long felt by practical teachers. It appears to be gaining the approbation of teachers generally. We hope, ere long, to give his works a review.

7. Mrs. Tracy, formerly matron of the Orphan Asylum, has been secured as preceptress of the High School at Columbus.

8. Mr. Nathan Guilford, a worthy citizen, has been chosen Superintendent of our city schools. He was elected, with the other city officers, by popular vote.

9. At the close of the last Legislative Session, a law was enacted for creating five Superintendents for the schools of the State. One of these is to edit a paper at the capitol, and take a general supervision of educational matters. The other four are to itinerate, stirring up the people, examining teachers, and discharging other duties affecting the interests of education. No Superintendents, however, have yet been appointed.

10. The article of Mr. C. P., of Mackinaw, Illinois, on "Prejudice," not coming exactly within the scope of our paper, has been laid aside for further consideration.

11. Many individuals have some trouble in correctly spelling words containing the dipthongs, *ei*, and *ie*, as in *believe*, *perceive*, &c. By using the word *lie*, mnemonically, and remembering that as, in it, *i* always follows next to *l*, and *e* next to *c*, all difficulty will be obviated.

12. Several of our principal teachers contemplate paying an official visit to the Boston schools, during the coming vacation.

13. We have heard that one of our principal teachers is to be called to take charge of the House of Refuge, which will go into operation about the first of September next.

14. Mr. Charles Anderson, a gentleman, a fine lawyer, and a wit, has been elected one of the Board of Trustees and Visitors of our Public Schools. The talents of Mr. Anderson admirably fit him for the place, and we doubt not he will prove a valuable member of the Board.

15. A Central High School was opened at Dayton, the belle of Ohio cities, on the 15th of last month. Mr. Campbell, a highly successful teacher in the Common schools, has been invited to take charge of it, assisted by Miss Dixon, in the female department.

STATE TEACHERS' CONVENTION.

This Convention will meet at Springfield on the 3d and 4th of July next. As the programme of it has not yet been made out, we have been instructed to say that the old one, so far as the parts assigned were not duly performed, will stand good. An animated meeting is anticipated, as much business of great importance will be brought before the Convention. We shall announce it more fully in our next number.

16. Friend A. D. Wright, of Perrysburg, sends us a paper containing resolutions strongly commanding the plans for the State Superintendency, proposed at the late State Teachers' Convention. These resolutions were passed at a meeting of the Little Miami Association of Teachers. As the late plans have now become a law it will not be necessary to insert the resolutions here.

17. We shall endeavor to notice, at some length, our friend D. A. French's Lectures on Grammar in our next.

OBITUARY.

We are called upon to notice the recent death of Mr URIAH PARKE, for twenty years the editor of the Zanesville Gazette. "At an early age, and without a dollar in money, or a friend to lean upon, he arranged his plans to support himself by hard labor, and at the same time pay for his education. At the age of sixteen, he became a teacher, in which pursuit he laid a foundation for all his subsequent mental accumulations. Before he was twenty-one he had compiled his arithmetic now extensively used throughout the United States." He commenced the publication of the Gazette in 1830, two years after having emigrated to this State. By his death, the press loses an able friend, teacher an earnest sympathiser, and the community one of its most valuable members.

For the School Friend.

THE NEW INTEREST RULE.

MESSRS. EDITORS:—I submit the following as further illustration of the "Rule for settling bonds, notes, &c., on which partial payments have been made," published in the March number of the Friend.

THE RULE.

Find such a principal, (*or present worth*) as would, at simple interest, amount to each payment, reckoning from the date of the note, to the date of payment.

Subtract the sum of the several principals (*or present worths*,) thus found, from the original principal, and find the *amount* of the remainder at simple interest, reckoning from the date of the note to the time of settlement, which will be the balance due.

As before observed, the rule supposes each payment to be an *amount*, canceling, in part, both principal and interest; and settles a single *note* with several *payments*, just as *custom* settles a single *debt*, for which several notes are given, and paid, with their interest, as they become due.

The following examples may serve as illustrations:

1. Note for \$400. Payments, \$106 in one year, \$112 in two years, and \$118 in three years. Settlement, four years from date. Present

worth of each payment \$100. Sum of the present worths (or principals) \$300. \$400-\$300 = \$100=the unpaid portion of the principal. Its amount for four years is \$124 which is the balance due.

2. Note for \$500, dated Jan. 1st, 1848.

Payments,

\$212, dated Jan. 1st, 1849, 1 year from date;

132, " Sept. 1st, 1849, 20 m. " "

68.97 " May 1st, 1850, 28 m. " "

Final sett'mt, Sept. 1st, 1850, 32 m. " "

The amount of \$1 for one year is \$1.06; for 20 m. \$1.10; for 28 m. \$1.14.

$212 \div 1.06 = \$200$ present worth of first payment.

$132 \div 1.10 = \$120$ " " " 2d "

$68.97 \div 1.14 = 60.50$

380.50 = sum of the pres't worths.

\$500 - 380.50 = 119.50 = the unpaid portion of the principal. Its interest for 32 m. is \$18.96, and the amount, \$138.46 which is the balance due.

3. Note for \$20,000, dated July 1st, 1832.

Endorsements,

\$400, dated Jan. 1st, 1833, 6 m. from date.

2000, " Jan. 1st, 1834, 18 m. " "

5000, " Sept. 1st, 1834, 26 m. " "

6000, " Feb. 16th, 1836, 43 $\frac{1}{2}$ m " "

Settlement, July 1st, 1837, 5 years " "

The amount of \$1 for 6 m. is \$1.03; for 18 m., \$1.09; for 26 m., \$1.13; for 43 $\frac{1}{2}$ m., \$1.21 $\frac{1}{4}$.

$\$400 \div 1.03 = \388.34 = present worth 1st pay't.

$2000 \div 1.09 = \$1834.86$ = " " 2nd "

$5000 \div 1.13 = \$4424.78$ = " " 3rd "

$6000 \div 1.21\frac{1}{4} = \4928.13 = " " 4th "

11,576.11 = sum of pres't worths.

\$20,000 - 11,576.11 = \$8423.89, unpaid portion of the principal. Its interest for five years is \$2527.16, and the amount, \$10,951.05, the balance due.

The last example is taken from Ray's Arithmetic (former edition) page 170.

The answers by three different rules, as given are,

By the "Common Rule, \$10,727.

By the "Connecticut Rule, 11,332.56.

By the "Mass. and New York Rule, 11370.47.

The difference of the several results may be seen. The rule is simple, and practically easy, and asks not whether the intervals of payment exceed a year, or whether the payment exceeds the interest.

J. M. E.

To the Teachers and Conductors of Public and Private institutions of learning, and the friends of education generally.

We, the undersigned, have been instructed to announce the fact, that an Association of Teachers has been formed in the city of Wheeling, under the style or title of "The Western Virginia College of Teachers," and also to set forth our design, and invite your cordial co-operation.

Our object is to further the great cause of gen-

eral education, by collecting and diffusing information relative to literary institutions, and the subject of instruction—by elevating the profession of teaching, and by assisting the heads of public and private Seminaries of learning, in securing competent teachers, and affording to teachers, facilities in obtaining situations.

For the purpose of securing these objects, we associate with us as regular members, all persons of proper moral and literary qualifications, who are, or may have been engaged in teaching; and as honorary members, gentlemen who have distinguished themselves in literary or scientific pursuits, or as friends and patrons of education.

Our Constitution requires the Corresponding Secretary of the College to keep a regular list of such Institutions as may apply for our assistance in obtaining teachers, furnishing a description of the requirements and emoluments of the situation. Each institution thus applying, and paying one dollar to the funds of the College, will secure our prompt attention. A list of teachers applying for situations will also be kept by the same officer.

The Executive Committee are authorized, at the request of the President of the College, to examine into the qualifications of any person desirous of obtaining a situation as a teacher and grant him such a certificate as the facts of the case may justify, to be signed by the President of the College and the chairman of the committee, for which the applicant shall pay one dollar into the funds of the College.

This, gentlemen, is a plain statement of our objects and designs, and we ask your candid attention, and, if approved, your cordial co-operation. We believe the College may be made the means of accomplishing much good, by securing more uniformity in the modes of teaching, and by awakening more interest and calling forth more energy, than has yet been exerted in the profession in this portion of our country.

Our regular meetings are held on the 1st Saturday of every month, (August excepted,) and at each meeting some topic of educational interest will be discussed, in connection with illustrations of the modes of teaching the various branches comprised in a full educational course.

Any communications addressed to James McKelly, Corresponding Secretary, shall be attended to with promptness.

JAS. MCKELLY } Committee.
D. A. WALLACE }

WHEELING, Jan. 26th, 1850.

Papers in the neighboring counties and states friendly to the cause of education, please copy.

Questions

PROPOSED TO THE PUPILS IN THE FIRST CLASSES IN THE SCHOOLS OF ASHTABULA COUNTY.

Write the definitions to the following words, viz:

1. Education.

2. Omnipotence.

3. Avarice.

4. Aerial.

5. Disdain.

6. Finite.

7. Demolish.

8. Parsimony.

9. Terrestrial.

10. Delusion

GEOGRAPHY.

1. What is the extent of Ohio in square miles?

2. What is the largest city in Ohio?

3. On what river is Columbus?

4. Name the largest of the Eastern States.

5. Name the states bordering on the Mississippi.

6. Which excels in facilities for internal commerce, South America or Africa?

7. Which has the warmest climate, the City of Mexico, or Charleston, South Carolina?

8. Is the sun approaching or receding from the Equator?

9. Name the countries that lie around the Mediterranean Sea.

10. Write the boundaries of Lake Erie.

ARITHMETIC.

1. If 4 apples cost 24 cents, what will 3 apples cost?

2. Add 6 pounds 19 shillings 11 pence, 2 pounds 3 farthings, 5 pounds 2 shillings 3 pence, together.

3. Add $\frac{3}{4}$ of 6, $\frac{4}{5}$ of 24, to $\frac{4}{5}$ of $\frac{3}{4}$.

4. Add .5-.05=.25 and .025 together.

5. Multiply 42 by the quotient of $\frac{4}{5} \div \frac{3}{4}$.

6. What is the interest of \$33.33 for 5 years, 5 months and 12 days, at 6 per cent?

7. What is the discount of \$775.50 for 4 years, at 5 per cent?

8. What is the ratio of 4 to 32?

9. How many ratios constitute a proportion?

10. Extract the square root of 6241.

GRAMMAR.

Study is useful when it develops harmoniously all the powers of our nature.

1. Write the name of each part of speech in order, commencing with the first in the preceding sentence.

2. Is the expression above a simple or a compound sentence?

3. What office does the word *when* perform?

4. Write the form of the first verb, in the first future tense of the indicative mode.

5. Write the passive form of the second verb in the above expression, in the third person plural number of the pluperfect tense, indicative mode.

6. In what mode is the word *developes* in the sentence above?

7. Write an adjective derived from each of the nouns in the above sentence.

8. Write an adverb derived from each of the nouns.

9. By what expressions is the word *powers* modified.

10. What word modifies the word *developes*?

Mathematical Department.

NOTE.—The following was intended for the April number, but did not reach the hands of the compositor until after the paper was made up. In consequence of this, the solutions to the questions in the March number, will not appear until June. The solutions to the questions in the present number, will be published in July.

Solutions.

QUESTION 2, BY A. FRESHMAN. Given the three angles of a triangle, 50° , 60° , 70° and the area 12 acres, to find the sides of the triangle.

SOLUTION. Let A, B, C, represent the required triangle, of which the angle A is 50° , B 60° , and C 70° . Denote the sines of the angles A, B, and C, by a , b , and c , and let AB = x :

Then as $AB : AC :: \sin C : \sin B$.

$$\text{or } x : AC :: c : b, \text{ hence } AC = \frac{bx}{c}$$

Again, $AB : BC :: \sin C : \sin A$.

$$\text{or } x : BC :: c : a, \text{ hence } BC = \frac{ax}{c}.$$

In the triangle CDB we have the proportion:

Rad: $\sin B :: BC : CD$,

$$\text{or } 1 : b :: \frac{ax}{c} : CD = \frac{abx}{c}.$$

But the area = $\frac{CD \times AB}{2c} = \frac{ahx^2}{2c} = 120$ sq. chains.

$$\text{hence } x = \sqrt{\frac{240c}{ab}} = 18.44 + \text{ chains.}$$

$$\frac{ax}{c} = 16.99 + \text{ chains, and } \frac{bx}{c} = 15.03 \text{ chains.}$$

ACKNOWLEDGMENTS.—Question 2 was solved by John J. Hooker, R. W. McFarland, D. Jamieson, and A. McLean. O. Goldricke furnished a solution to the question of C. A. Leeson, which came too late for notice in the March number.

There is a difficulty connected with question 1, which all of our correspondents seem to have failed to discover; in consequence of which, it is proposed again.

Questions.

QUESTION 1, BY D. JAMIESON. To complete a certain work, A requires m times as long a time as B and C together; B requires n times as long as A and C together; and C requires p times as long as A and B together. It is required to find the time, or the ratios of the times in which each can do it.

QUESTION 2, BY J. E. HENDRICKS. There are two circles of equal diameter, the periphery of each being divided into 44310 equal parts, and these circles are made to revolve round one common axis,

in contrary directions, in the following manner, viz: one of them moves one of the equal parts, the first day; two the second day, three the third day, and so on; and the other moves over the cubes of those numbers, viz, 1, 8, 27, and so on. It is required to find how many days each of them must move, before any two parts which are together when they start, will again come together, supposing them to start at the same instant.

NOTE.—Solutions should be forwarded not later than the tenth of the month preceding that in which they are expected to appear.

ABSTRACT OF THE METEOROLOGICAL REGISTER,

KEPT AT

Woodward College, Cincinnati,

Lat. 39 deg. 6 minutes N.; Long. 84 deg. 27 minutes W.
150 feet above Low Water Mark in the Ohio.

BY JOSEPH RAY, M. D.

MARCH, 1850.

Day of Month	Fahr heat. Therm'ter	Barom.	Wind.			Weather.	Clearness of Sky.	Rain.
			Mean height in in.	A. M.	P. M.			
1	33 46 37.0	29.058	w	w	3	clear	10	
2	29 51 39.2	.158	s w	s w	1	variable	2	1.46
3	28 38 31.3	.272	n w	n	1	cloudy	0	
4	22 36 27.8	.647	n	do	1	fair	9	
5	23 5 49.7	.447	s	s	1	variable	4	2.24
6	40 59 46.7	.28550	s	w	4	variable	1	.93
7	37 53 42.5	.29188	e	n w	3	fair	8	
8	36 53 46.3	.428	w	e	1	variable	5	
9	28 69 47.5	.29012	n e	w	4	fair	8	
10	7 48 35.2	.507	s w	n w	3	clear	10	
11	24 53 38.5	.29397	n w	n w	3	fair	9	
12	28 47 48.0	.346	n w	e	2	do	7	
13	49 53 50.3	.28971	e	s w	3	cloudy	0	.93
14	41 63 49.5	.29204	e	w	2	fair	9	
15	44 61 50.0	.236	w	n	1	variable	1	
16	42 6 51.0	.221	n	e	1	fair	0	.37
17	46 71 57.3	.28957	do	n w	1	variable	1	.11
18	38 48 41.0	.292.3	n	e	3	fair	6	
19	32 45 38.0	.515	w	n e	2	variable	1	
20	34 45 40.3	.542	n e	n e	1	cloudy	0	.09
21	39 49 44.7	.275	n e	e	1	do	0	.08
22	35 44 39.2	.071	e	n	2	do	0	
23	32 48 37.2	.243	n e	w	3	fair	7	
24	27 41 3.7	.211	n w	n w	3	variable	4	
25	22 38 30.7	.272	n w	n w	2	do	2	
26	26 44 33.2	.131	n	n	2	do	1	
27	21 43 34.3	.180	n	n	1	do	4	
28	31 45 38.7	.249	w	n	1	do	3	
29	35 56 42.5	.324	n e	w	1	do	4	
30	32 58 47.2	.237	s w	n e	1	fair	6	
31	42 69 50.5	.244	s w	e	1	variable	4	

EXPLANATION.—The 1st column contains the day of the month; the 2d the minimum or least hight of the thermometer, during the twenty-four hours beginning with the dawn of each day; the 3d the maximum, of greatest hight during the same period; the 4th the mean or average temperature of the day, reckoning from sunrise to sunrise; the 5th the mean hight of the barometer, corrected with particularity and reduced to the temperature of freezing water. In estimating the force of the wind, 0 denotes calm, 1 a gentle breeze, 2 a strong breeze, 3 a light wind, 4 a strong wind, and 5 a storm. In estimating the clearness of the sky, 10 denotes entire clearness, or that which is nearly so, and the other figures, from 0 to 10, the corresponding proportions of clearness. The other columns need no explanation.

SUMMARY—

Lest hight of Thermometer,	22 deg.
Greatest hight of do	71
Monthly range of do	49
Least daily variation of do	4
Greatest daily variation of do	31
Mean temperature of month,	41.2
do do at sunrise,	34.5
do do at 2 P. M.	51.5
Coldest day, March 4th.	
Mean temperature of coldest day,	27.8
Warmest day, March 13.	
Mean temp. of warmest day,	57.3

Minimum hight of Barometer, 28.553 inches
Maximum do do 29 6.9 do
Range of do do 1.088 do
Mean hight of do do 29.2358 do
No. of days of rain and snow, 10.

Perpendicular depth of rain and melted snow, 6.62 in.
Perpendicular depth of unmelting snow, 3 in.

WEATHER.—Clear and fair, 11 days; variable 14

days—cloudy, 6 days.

WIND.—N. 7 days; N. E. 6 days; E. 3 days; S. E. 1 day; S. 1 day; S. W. 2 days; W. 4½ days; N. W. 7 days.

MEMORANDA.—1st, clear and windy; 2d, began to rain, 7 P. M., and till 8 A. M. of the 3d, snow 3 inches deep; 5th, began to rain 7 P. M., rained hard all night, and nearly all of the 6th; weather pleasant till 13th; 13th, wet day and night, with heavy thunder and lightning; 16th and 17th, shower; 20th, 21st, and 22d, drizzling; rest of month, wet and dry.

OBSERVATIONS.—The mean temperature of March this year, is about five degrees less than last year, and nearly two degrees less than the average of the same month during the last sixteen years. The quantity of rain is nearly twice the average. The first and middle of the month was wet, but not unpleasant; the last of the month was cold and dry, with hard freezing, which has had the effect of retarding the progress of vegetation.

The Eruption of Vesuvius.

A correspondent of the Journal of Commerce thus describes the ground scenes of the mountain since the eruption.

I am sorry I did not come here a few days sooner, to witness one of Vesuvius' grand eruptions—which has been the largest ever known. We have been to-day to see the lava, &c., and it is most wonderful. A new crater has been formed, and the emission of lava was so immense, that it has extended a distance of seven miles, one and a half to three miles wide, and about thirty feet high. After descending the mountains, it has gone forward, one and a half miles wide, and thirty feet high, for a distance of five miles at least; and forms an embankment like that of a railroad raised over a plain, covering thirty-two houses and one or two churches, and destroying, of course, an immense number of vineyards and farms. The direction was on the side opposite of Naples. The sight must have been grand; and while it lasted (say five days,) the Railroad cars run all night, to carry people to see it. Although the trembling of houses at Naples, was sensibly felt during the eruption, there was not the least apprehension of danger.

Volcanoes.

Professor Silliman says there are now about 303 active volcanoes, of which 193 are islands, and 110 on the continents. The proximity of the great mass of volcanoes to the sea, is a fact of great interest, especially when it is remembered that there are submarine volcanoes, burning in the midst of the ocean. The upheaving of land from the midst of water by forces analogous to volcanic action, is familiar to the geologist, and gives interest to the position of volcanoes in the neighborhood of the sea. The volcanoes in the interior of Asia, are the solitary exceptions to this rule. One of them, the volcano of Peschan, is 1,528 geographical miles from the sea towards the north, 1,512 towards the south, 1,860 on the west, and 1,020 on the east. The distance of Popocatapetl, in Mexico, from the sea 132 geographical miles—is so inconsiderable,

compared to that of the Asiatic volcanoes, that it need scarcely be regarded as a deviation from the law of proximity to the sea.

♦ ♦ ♦

Last Wishes of a Child.

The following beautiful little poem was written by JAMES T. FIELDS, for the Boston Book for 1850.

"All the hedges are in bloom,
And the warm west wind is blowing—
Let me leave this stifled room,
Let me go where flowers are growing!"

"Look! my cheek is thin and pale,
And my pulse is very low,—
Ere my sight begins to fail,
Take my hand and let us go."

"Was not that the robin's song,
Piping through the casement wide?
I shall not be listening long,
Take me to the meadow side—

"Bear me to the willow brook—
Let me hear the merry mill—
On the orchard I must look,
Ere my beating heart is still."

"Faint and fainter grows my breath—
Bear me quickly down the lane;
Mother, dear, this chill is death—
I shall never speak again."

Still the hedges are in bloom,
And the warm west wind is blowing;
Still we sit in silent gloom:—
O'er her grave the grass is growing.

♦ ♦ ♦

Diversity of Winds.

The variation of the winds is considerable. In some places they are constant during the whole year, always blowing in the same direction; in others they change at certain periods, and have regular laws. In the open sea, between the tropics, and for some degrees beyond them, an easterly wind continues all the year round, without any considerable variation. To the north of the line, the wind blows north-east, and to the south of the line the wind blows towards the south-east, and that more or less, according to the position of the sun. This, however, only strictly holds in the open sea; for when islands and great continents obstruct the progress of this wind, they may change its course, and, in certain places, make it take a north-east direction. In the southern parts of the ocean, a westerly wind generally prevails. The nearer we approach the coasts, the more variable is the wind, and it is still more so, as we advance farther in land.

The constant east wind is chiefly caused by the heat which the sun communicates to our atmosphere. In the Indian sea there are winds named trade winds, or monsoons, which continue to blow in the same direction from three to four months of the year, and during a similar space oftentimes blow in the opposite direction. The causes operating to produce these, are scarcely yet satisfactorily explained; but it cannot be doubted that the alternations of heat and cold, the position of the sun, the nature of the soil, the inflamma-

tion of meteors, the condensation of vapors into rain, and other similar phenomena, have great effect in their production.

There are certain seas and countries which have winds and calms peculiar to them. In Egypt and the Persian Gulf, during the summer, a burning wind, which stops respiration, and consumes everything, very frequently prevails. At the cape of Good Hope, a cloud is sometimes seen to form, which the inhabitants term the fatal cloud, or ox-eye; at first it is very small, but soon visibly increases, and a furious tempest proceeds from it, which oversets ships, and precipitates them to the bottom of the sea.

Uncertain and variable winds, which have no determinate direction or duration, prevail over the greatest part of the globe, for though certain winds may blow more frequently in one place than in another, they do not return at fixed intervals, but begin and end without any regularity, and vary in proportion as different causes interrupt the equilibrium of the air. Heat and cold, rain and fine weather, mountains, straits, capes, and promontories, may contribute, in a considerable degree, to impede their course, and change their direction. No doubt many other causes, which are unknown to us, influence the general modifications and agitations of the air.

What is particularly remarkable, and daily occurs in almost every place, is that a little before sunrise, the air is perfectly still and calm, when, in a few minutes after, just at the break of morning, a pretty brisk east wind begins to rise at the approach of the sun, and continues some time after it is risen. This undoubtedly proceeds from the air, heated by the rays of the rising sun, becoming rarified, and by its consequent expansion, displaces the contiguous air, and then produces an east wind, which ceases as the surrounding air also becomes heated. For similar reasons, an east wind ought always to precede the sun in the torrid zone, and blow much stronger than in this country, because the sun's power here is much less than in the regions bordering upon the line. The wind, then, in the torrid zone, constantly blows from east to west, whilst a west wind very rarely prevails in those parts.

From these observations, we learn that winds are not the effects of chance, without either cause or design. In these, as in everything else, the Creator manifests his wisdom and goodness; and he has so arranged them, that they are continually rising, and a dead calm very seldom happens. He regulates the motion, power, and duration of the winds, and prescribes to them the course they ought to take. Their very diversity is of use; for when a long drought has made plants and animals languish and droop, a wind proceeds from the sea coast, loaded with exhalation, waters the meadows, and gives new animation to nature.—When this object is accomplished, a dry wind coming from the east, restores the serenity of the air, and brings back fine weather. The north

brings along with it numerous frozen particles, and purifies the autumnal air from its noxious vapors. Lastly, to the sharp north wind succeeds the south wind, and coming from the southern regions, it diffuses a grateful warmth through the air. Thus these continual variations of the winds tend to preserve health and fertility in the earth.

Who can make such reflections as these, and not adore God, in whose hands are all the elements, and whose word either bids them rage or calms their strife? At His command, the storms and tempests roar, and, bursting from the ocean's depths, rush to earth's utmost boundary; when again, at His word, all is still and hushed, as on an autumnal evening, when not a breeze plays on the surface of the deep.

♦ ♦ ♦

A teacher one day endeavoring to make a pupil understand the nature and application of a passive verb, said:

'A passive verb is expressive of the nature of receiving an action, as, Peter is beaten. Now what did Peter do?'

The boy, pausing a moment with the gravest countenance imaginable, replied:—

'Well, I don't know, without he hollered.'

Franklin says: "If a man empty his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest."

♦ ♦ ♦

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(Signed)

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P. CARTER.

February 24, 1849.

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(Signed)

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February 28, 1849.

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